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# 調和解析学と非線形偏微分方程式

京都大学数理解析研究所

2004年7月

## **Workshop on Harmonic Analysis and Nonlinear Partial Differential Equations**

Research Institute for Mathematical Sciences, Kyoto University  
Room No. 420

Monday, July 7, 13:30 — Wednesday, July 9, 11:45, 2003

Organizer: Masao Yamazaki (Waseda Univ.)  
e-mail: masao.yamazaki@waseda.jp

Monday, July 7

13:30–14:30 Hiroaki Aikawa (Shimane Univ.)

Fatou and Littlewood theorems for nonintegrable kernels

14:45–15:45 Yasuo Komori (Tokai Univ.)

Singular integral and cancellation property

16:00–17:00 Takashi Ichinose (Kanazawa Univ.)

Recent results on the selfadjoint Trotter-Kato product formula  
in operator norm with open problems

18:30– Banquet

Tuesday, July 8

9:45–10:45 Kunio Hidano (Mie Univ.)

Kazuyoshi Yokoyama (Hokkaido Inst. Tech.)

A new proof of the global existence theorem of Klainerman

10:55–11:40 Shuji Yoshikawa (Tohoku Univ.)

Weak solution for the Falk model system of shape memory alloys

13:15–14:00 Jun-Ichi Segata (Kyushu Univ.)

Well-posedness for the Boussinesq-type system related to the  
water wave

14:10–14:55 Xu Bin (Univ. of Tokyo)

Derivatives of spectral function and Sobolev norms of  
eigenfunctions on a closed Riemannian manifold

15:05–15:50 Jun Kato (Hokkaido Univ.)

On some generalized weighted Strichartz estimates for the wave equation and application to self-similar solutions in low space dimensions

16:00–17:00 Michael F. Christ (Univ. of California, Berkeley)

James Colliander (Univ. of Toronto)

Terence Tao (Univ. of California, Los Angeles)

Recent progress on the nonlinear Schrödinger evolution problem

Wednesday, July 9

9:45–10:30 Takayuki Kubo (Waseda Univ.)

Yoshihiro Shibata (Waseda Univ.)

$L^p$ - $L^q$  estimates of Stokes semigroup in the exterior domain of  $\mathbb{R}_+^n$

10:45–11:45 Yasushi Taniuchi (Shinshu Univ.)

On 2-D Euler equations with initial vorticity in  $bmo$

調和解析学と非線形偏微分方程式  
Harmonic Analysis and Nonlinear Partial Differential Equations  
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2003年7月7日～7月9日  
研究代表者 山崎 昌男 (Masao Yamazaki)

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